

**REMARKS**

Claims 1-25, 28-40 and 43-46 are rejected. Claims 26, 27, 41 and 42 are objected to. Claims 1, 15, 28, and 43-46 have been amended. Claims 6 and 7 have been canceled. New claims 47-50 have been added. Claims 1-5, 8-25, 28-40 and 43-50 are presently pending in the application. Favorable reconsideration of the application in view of the following remarks is respectfully requested.

The basis for the amendment of claim 1 is found on pg. 20 line 25 (applied to the surface thereof), pg. 4, line 6, pg. 12, line 9, pg. 19, lines 9 and 11 (interconnected), pg. 5, lines 27-28 (electrically conductive) and claim 7 as originally filed (wherein said antistatic layer comprises a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq). The basis for the amendment of claim 15 is claim 7 as originally filed. The basis for new claims 47-50 are original claims 26, 27, 41 and 42, rewritten in independent format.

**Allowable Claims:**

The Applicant thanks the Examiner for indicating that Claims 26, 27, 41 and 42 would be allowable if written in proper independent form. New claims 47-50 have been added accordingly.

**Rejection of Claims 28 and 43-46 under 35 USC § 112:**

The Examiner has rejected Claims 28 and 43-46 under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention, as there is no antecedent basis for the term "said polymer" in claim 28, and, in claims 43-46 there is no antecedent basis for the term "said imaging layer". The claims have been amended to correct their dependency.

**Rejection of Claims 1, 2, 4-6, 8-13, 16-20, 23, 24, 28-36, 38 and 43-46 Under 35 U.S.C. §102(e):**

The Examiner has rejected Claims 1, 2, 4-6, 8-13, 16-20, 23, 24, 28-36, 38 and 43-46 under 35 U.S.C. § 102(e) as being fully met by Kaminsky et al., which disclose articles comprising supports, patterns of plurality of polymer conductive channels and imaging layers, e.g. ink jet receivers and liquid crystal imaging layers, in which polythiophene is the preferred conductive polymer.

Kaminsky discloses is an article comprising a layer of nonconductive polymeric material comprising a plurality of integral polymer conduit channels containing a substantially transparent conductive material.

The present invention relates to an antistatic article comprising a support having deposited on the surface thereof at least one antistatic layer, wherein said antistatic layer comprises a conductive material having interconnected areas of patterned coverage, and wherein said antistatic layer comprises a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq.

A claim is anticipated under 102(e) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants have amended claim 1 to incorporate a surface-deposited antistatic layer with interconnected areas of patterned coverage and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. Kaminsky fails to disclose interconnected patterns in surface-deposited antistatic layers with a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. As a result, the reference fails to anticipate the present claims and the Applicants request the Examiner to reconsider and withdraw the rejection.

**Rejection of Claims 1, 4-6, 8-12, 14, 16, 19, 20, 23, 24, 29 and 33-35 Under 35 U.S.C. §102(e):**

The Examiner has rejected Claims 1, 4-6, 8-12, 14, 16, 19, 20, 23, 24, 29 and 33-35 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Marietti et al., which disclose supports with patterns of thin film transparent coatings of metal or semiconductive material which are conductive, in which conductive patterns of varied thicknesses are inherently anti-static patterns.

Marietti is directed to a transparent article having a visually observable contrast between coatings deposited over a substrate or between coatings deposited over a substrate and uncoated surfaces of the substrate, to provide a patterned surface. One of the coatings exhibits a reflected color and a differing transmitted color, at least one of which differs from the reflected color or transmitted color of the other coating(s) or the uncoated surface of the substrate. The invention is also directed to methods of making the articles.

The present invention relates to an antistatic article comprising a support having deposited on the surface thereof at least one antistatic layer, wherein said antistatic layer comprises a conductive material having interconnected areas of patterned coverage, and wherein said antistatic layer comprises a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq.

A claim is anticipated under 102(e) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. Verdegna Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants have amended claim 1 to incorporate a surface-deposited antistatic layer with interconnected areas of patterned coverage and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. Marietti fails to disclose interconnected antistatic layers. Without this interconnection, the patterns of Marietti, although capable of conducting, would not function to conduct the accumulated charge in an imaging element along the full area of the element and away from areas of the imaging element sensitive to exposure to electrical discharge, especially in the form of light. Without removal of the charge from imageable areas, the light sensitive areas could be exposed by accumulated discharge in the location of the pattern. Unintentionally exposed areas are considered a bad feature in imaging elements. In addition, Marietti fails to mention a conductivity range as presently amended, indicative of an antistatic material. As a result, the reference fails to anticipate the present claims and the Applicants request the Examiner to reconsider and withdraw the rejection.

**Rejection of Claims 1, 4-11, 13, 16, 19, 20, 23, 24, 28-36, 39, 43 and 44 Under 35 U.S.C. §102(e):**

The Examiner has rejected Claims 1, 4-11, 13, 16, 19, 20, 23, 24, 28-36, 39, 43 and 44 under 35 U.S.C. § 102(e) as being fully met by Bellmann et al., which discloses receptor substrates patterned with electrodes of conductive polymers, especially Figure 3, which shows a device comprising a support and a pattern of stripes of conductive anodes and cathode stripes perpendicular to the anode stripes.

Bellmann discloses a method of transferring a transfer element of a donor sheet to a receptor includes forming an organic layer on a receptor substrate and forming a transfer element on a donor sheet, where the exposed surface of the transfer element is organic for use as electrodes. Either the surface of the organic

layer or the exposed surface of the transfer element (or both) is roughened using a plasma treatment. The transfer element of the donor sheet is then selectively thermally transferred to the surface of the organic layer.

The present invention relates to an antistatic article comprising a support having deposited on the surface thereof at least one antistatic layer, wherein said antistatic layer comprises a conductive material having interconnected areas of patterned coverage, and wherein said antistatic layer comprises a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq.

A claim is anticipated under 102(e) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants have amended claim 1 to incorporate a surface-deposited antistatic layer with interconnected areas of patterned coverage and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. Bellmann fails to disclose interconnected patterns of surface-deposited antistatic layers with a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. As a result, the reference fails to anticipate the present claims and the Applicants request the Examiner to reconsider and withdraw the rejection.

**Rejection of Claims 1, 2, 4-6, 8-14, 16-20, 23, 24, 28-36 and 43-46 Under 35 U.S.C. §102(e):**

The Examiner has rejected Claims 1, 2, 4-6, 8-14, 16-20, 23, 24, 28-36 and 43-46 under 35 U.S.C. § 102(e) as being fully met by Bourdelais et al., which discloses articles comprising supports, patterns of conductive channels and optionally imaging layers, e.g. ink jet or liquid crystal display layers, in which the channels may comprise two conductive layers and the conductive layers are preferably polymers.

Bourdelais discloses an article comprising a polymer layer containing a plurality of integral polymer conduit channels that contain at least two layers with at least one comprising a conductive material and the other serving a function beyond protection.

The present invention relates to an antistatic article comprising a support having deposited on the surface thereof at least one antistatic layer, wherein said antistatic layer comprises a conductive material having

interconnected areas of patterned coverage, and wherein said antistatic layer comprises a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq.

A claim is anticipated under 102(e) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants have amended claim 1 to incorporate a surface-deposited antistatic layer with interconnected areas of patterned coverage and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. Bourdelais fails to disclose interconnected, surface-deposited antistatic layers with a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. As a result, the reference fails to anticipate the present claims and the Applicants request the Examiner to reconsider and withdraw the rejection.

**Rejection of Claims 1-20, 23, 24, 28, 29, 33-36, 37 and 40 Under 35 U.S.C. §102(e) or 35 U.S.C. 103(a):**

The Examiner has rejected Claims 1-20, 23, 24, 28, 29, 33-36, 37 and 40 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cloots et al., disclosing articles comprising supports and patterns of conductive thiophene polymer.

Cloots discloses a method of making an electroconductive pattern on a support comprising providing a support with a polymer layer containing a polythiophene, a polyanion and a di- or polyhydroxy organic compound, which has an initial surface resistivity higher than  $10^4$  Ohm/sq. followed by heating selected areas of the polymer layer to reduce the surface resistivity of these areas. The electroconductive pattern thus obtained can be used as an electronic circuit for making an electric or semiconductor device such as a printed circuit board, an integrated circuit, a display, an electroluminescent device or a photovoltaic cell for use in electronic circuitry in an electric or semiconductor device.

The present invention relates to an antistatic article comprising a support having deposited on the surface thereof at least one antistatic layer, wherein said antistatic layer comprises a conductive material having interconnected areas of patterned coverage, and wherein said antistatic layer comprises a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq.

A claim is anticipated under 102(e) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior

art reference. Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants have amended claim 1 to incorporate a surface-deposited antistatic layer with interconnected areas of patterned coverage and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. Cloots fails to disclose interconnected, surface-deposited antistatic layers with a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. As a result, the reference fails to anticipate the present claims.

To establish a prima facie case of obviousness requires, first, there must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combines) must teach or suggest all the claim limitations.

Cloots discloses applying a continuous layer, followed by treatment of selected areas to produce a patterned conductivity. There is no motivation in Cloots to apply a patterned layer of material itself, since the patterning of Cloots is accomplished via application of a continuous layer followed by treatment of selected areas and Cloots also indicates (claim 1) that the conductive polymer is intact across the layer.

Cloots also provides no likelihood of success in producing an antistatic material by utilizing an interconnected but patterned layer. Cloots teaches the use of electrodes and indicates that conductivities in the presently claimed range of between  $10^{13}$  and  $10^7$  Ohms/sq. is unsuitable as an electrode (col. 2, lines 39-40), and is silent regarding use as an antistatic layer.

Cloots also fails to disclose the present limitations that the patterned areas be interconnected and that the resistivity of the layer be between  $10^{13}$  and  $10^7$  Ohms/sq.

The present invention also provides a surprising benefit over Cloots. The present invention results in the use of less conductive material, since the material is applied to less than the total area of the support, resulting further in cost savings.

In summary, the Applicants believe that the reference to Cloots does not provide a motivation to modify or a likelihood of success and fails to disclose all of the present claims limitation. The presently claimed invention also

provides an undisclosed benefit over the reference. The Applicants request that the Examiner reconsider and withdraw the rejection.

**Rejection of Claims 1, 4-11, 16, 22, 23, 28, 29, 31, 33 and 35 Under 35 U.S.C. §102(e) or 35 U.S.C. 103(a):**

The Examiner has rejected Claims 1, 4-11, 16, 22, 23, 28, 29, 31, 33 and 35 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Van Paesschen et al., disclosing polyester supports with antistatic conductive stripes and imaged and processed silver halide layers, in which, if Van Paesschen et al. do not anticipate the instant claims, then it would at least be obvious to one skilled in the art to use the disclosed magnetic stripes over the disclosed anti-halation layers.

Van Paesschen discloses a dimensionally stable polyester film support carrying a primer coating for improving the adhesion thereto of subsequently applied coatings. More especially the invention relates to the manufacture of motion picture film materials having applied thereto magnetic recording stripes, particularly motion picture film materials wherein the film support is a film of high molecular weight linear polyester, more especially a film of polyethylene terephthalate.

The present invention relates to an antistatic article comprising a support having deposited on the surface thereof at least one antistatic layer, wherein said antistatic layer comprises a conductive material having interconnected areas of patterned coverage, and wherein said antistatic layer comprises a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq.

A claim is anticipated under 102(e) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants have amended claim 1 to incorporate a surface-deposited antistatic layer with interconnected areas of patterned coverage and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. Van Paesschen fails to disclose surface-deposited antistatic layers with an interconnected pattern and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. As a result, the reference fails to anticipate the present claims.

To establish a prima facie case of obviousness requires, first, there must be some suggestion or motivation, either in the references themselves, or in

the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combines) must teach or suggest all the claim limitations.

Van Paesschen fails to disclose surface-deposited antistatic layers with an interconnected pattern and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. The Examiner indicates that Van Paesschen discloses polyester supports with antistatic conductive stripes and imaged and processed silver halide layers, in which, if Van Paesschen et al. do not anticipate the instant claims, then it would at least be obvious to one skilled in the art to use the disclosed magnetic stripes over the disclosed anti-halation layers. The stripes of Van Paesschen are magnetic, not electrically conductive as presently claimed. Van Paesschen also describes an antistatic layer, however, makes no mention of patterning the antistatic layer. There is no suggestion in Van Paesschen that would lead one to pattern the electrically conductive antistatic layer.

There is no teaching or suggestion in Van Paesschen that would lead one of ordinary skill in the art to believe that a patterned magnetic layer would function as an antistatic layer. Neither is there any disclosure that would lead one to pattern the antistatic layer of Van Paesschen.

The present claims relate to surface-deposited antistatic layers with a continuous, interconnected pattern and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. The reference to Van Paesschen fails to mention patterned antistatic layers, continuous interconnected patterned antistatic layers and also fails to disclose an antistatic layer which has a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq.

In summary, the Applicants believe that the reference to Cloots does not provide a motivation to modify or a likelihood of success and fails to disclose all of the present claims limitation. The presently claimed invention also provides an undisclosed benefit over the reference. The Applicants request that the Examiner reconsider and withdraw the rejection.

**Rejection of Claims 1, 2, 4-11, 16, 19, 22, 23, 28-37, 40 and 43-46 Under 35 U.S.C. §102(e) or 35 U.S.C. 103(a):**

The Examiner has rejected Claims 1, 2, 4-11, 16, 19, 22, 23, 28-37, 40 and 43-46 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under



35 U.S.C. 103(a) as obvious over Yuyama et al., which disclose articles with protective stripes containing conductive antistatic compounds on the image or backside of supports in which the imaging elements are silver halide or electrophotographic imaging elements, making it at least obvious to one skilled in the art to add the disclosed antistatic agents to the protective stripes in Yuyama et al.

Yuyama discloses a light transmissible light-sensitive recording material comprising a long film having an image protective zone on both sides of at least one surface of the film which each have a kinetic friction coefficient of 0.35 or less and which are provided in the lengthwise direction of the film in parallel with each other resulting in a light-sensitive materials with reduced wear, permitting repeated use.

The present invention relates to an antistatic article comprising a support having deposited on the surface thereof at least one antistatic layer, wherein said antistatic layer comprises a conductive material having interconnected areas of patterned coverage, and wherein said antistatic layer comprises a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq.

A claim is anticipated under 102(e) only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants have amended claim 1 to incorporate a surface-deposited antistatic layer with interconnected areas of patterned coverage and a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. Yuyama fails to disclose antistatic layers bearing an interconnected pattern with a resistivity of between  $10^{13}$  and  $10^7$  Ohms/sq. As a result, the reference fails to anticipate the present claims.

To establish a prima facie case of obviousness requires, first, there must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combines) must teach or suggest all the claim limitations.

Yuyama discloses an image protective zone which may include an antistatic compound. However, Yuyama indicates that the zone does not enter

into the image region (col. 4, lines 64-66) and are located at the lengthwise edges of the film. The present invention claims an interconnected pattern. There is no mention in Yuyama that the image protective zones are interconnected. Also, the presently claimed interconnected pattern is intended to be located anywhere, including the image region. It is unclear how the zones could be interconnected without entering the image region.

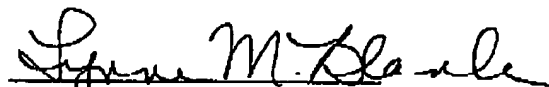
Yuyama provides no likelihood of success in producing an antistatic material by utilizing an interconnected patterned layer. In fact Yuyama teaches that the zones cannot be interconnected, as the image protective zone does not enter the image region. Neither does Yuyama provide any likelihood of success that an antistatic material in zones along the lengthwise edges of the film would eliminate the risk of static discharge across the whole article.

Yuyama also fails to disclose the present limitations that the patterned areas be interconnected and that the resistivity of the antistatic layer be between  $10^{13}$  and  $10^7$  Ohms/sq.

In summary, the Applicants believe that the reference to Cloots does not provide a motivation to modify or a likelihood of success and fails to disclose all of the present claims limitation. The presently claimed invention also provides an undisclosed benefit over the reference. The Applicants request that the Examiner reconsider and withdraw the rejection.

It is believed that the foregoing is a complete response to the Office Action and that the claims are in condition for allowance. Favorable reconsideration and early passage to issue is therefore earnestly solicited.

Respectfully submitted,

  
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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4636.